



Conceptualising organisational-level and microfoundational capabilities: an integrated view of born-globals' internationalisation

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Abstract

For born global firms, which embark on a special internationalisation pathway and shift from a cohort of individuals to small effective ventures, microfoundations play a significant but underexplored role in building organisational capabilities. This conceptual paper aims to address this neglect and incorporates the microfoundational level resources as well as capturing the transformation of organisational level capabilities in this distinctive breed of firms that internationalise at or soon after inception. We propose an integrated model of born globals' accelerated internationalisation in which micro and macro-level learning mechanisms moderate the transformation of the initial endowment of resources and capabilities into a set of enhanced dynamic and operational capabilities leading to the final outcomes of accelerated internationalisation. The microfoundational resources are intensified by externalisation, synergistic mutation and aggregations processes at the organisation foundation stage, and then are reconfigured and enriched as firms develop and internationalise. Concluding remarks, contributions to the literature and implications for future research are also presented.

Keywords Born global · Dynamic capabilities · Internationalisation · Microfoundations · International new venture

Introduction

The phenomenon of born globals, a distinctive breed of firms that internationalise at or soon after inception (Madsen and Servais 1997), has received much attention from

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researchers over the last few decades (Baier-Fuentes et al. 2019). Questioning the capabilities of those firms which internationalise rapidly and early, various models have been offered, such as Weerawardena et al.'s (2007) a dynamic capability-based model (DCB), Weerawardena et al.'s (2019) empirically tested and extended DCB model, or Rialp et al. (2005) exploratory resource-based model. Interestingly, different authors contribute to understanding the organisational capabilities development process under diverse theoretical lens, for instance, network-view (Coviello and Cox 2006), knowledge-based perspective (Mejri and Umemoto 2010), and dynamic capabilities view (Weerawardena et al. 2007; Teece 2012, 2014b; Weerawardena et al. 2019). In this research, we view capabilities as a special type of capacity possessed by the firm to enhance resources and competitiveness (Makadok 2001).

The exemplar case of “born global”, Cochlear, was first discussed by Rennie (1993), who also coined the term. Cochlear produces hi-tech ear implants for the profoundly deaf, and in the first few years, 95 % of its sales were from international markets with a rapid compound growth rate of 25 % annually (Rennie 1993). This was achieved mostly thanks to the firm's strong connections and collaborations with hospitals and research partners around the world (Cavusgil and Knight 2009). Cochlear and the other three hundred firms in the original report presented a novel breed of highly dynamic small firms with an unorthodox overseas-expansion pathway, which challenged the conventional theories on internationalisation. Recent research has found that the proportion of born global companies, also sometimes referred to as international new ventures (INVs) (Knight and Liesch 2016), relative to the more traditional gradually internationalising firms, has increased over time (Skene 2017). We concur with Knight and Liesch (2016) that the INV term might more broadly include international venturing strategies of MNEs. However, in this paper we focus attention on the context of the born global startup and seek to develop an integrated model of born global internationalization that explains the mechanisms that underlie the success of these firms.

According to Madsen and Servais (1997: 565), the born global phenomenon can be explained by at least three key factors: “(1) the new market conditions, (2) technological developments in the areas of production, transportations and communication, and finally (3) *more elaborate capabilities of people, including the founder/entrepreneur ... [emphasis added]*”. Consequently, the development of born global firms is a challenge undertaken in a changing context. In such a condition, organisations in general, and rapidly internationalising firms in particular, need to make increased efforts to sustain and develop capabilities to survive and thrive. The dynamic capabilities view (Teece et al. 1997; Teece 2012, 2014b) is proposed to explain how firms can modify, reconfigure and transform operational routines and capabilities to better deal with new conditions. Besides, the interplay and reconfiguration of managers' capabilities lay the foundation for born globals to grow (Abell et al. 2008; Loasby 2006; Felin et al. 2015; Cavusgil and Knight 2015). At the same time, the learning view, which suggests that the evolution of firms' routines and capabilities (Zollo and Winter 2002; Romme et al. 2010) can be facilitated by different learning mechanisms and processes, has increasingly gained interest from researchers. In this view, the accumulation of experience, articulation and codification of knowledge might facilitate dynamic capabilities and renew routinised activities (Zollo and Winter 2002). Given the special internationalisation trajectory and uniqueness in the fabrication and development of capabilities, several researchers (Weerawardena et al. 2007; Weerawardena et al. 2019)

advocate for exploring different processes to be applied in the born globals' internationalisation. Furthermore, at the intersection of different disciplines, the complex born global phenomenon, embarking on innovative internationalisation strategies in a fast changing and “shape-shifting” environment (Thrassou and Vrontis 2018), has a chance of being explained more insightfully when it is viewed under multiple, vigorous theoretical lens.

The microfoundations view (Felin & Foss 2005, 2006) has recently emerged as a theoretical lens which might further explain organisational performance and evolution (Eisenhardt, Furr & Bingham 2010), with deeper exploration of the individuals in born globals' internationalisation process (Coviello 2015). Incorporating this view in our paper, we attempt to more clearly connect the tentatively understood link between individual-level resources and capabilities to that of the organisation. Better linkage between the two paves the way for born globals to generate or reinforce competitiveness and dynamism in their internationalisation effort.

This paper is in response to the calls by a number of researchers (Rialp et al. 2005; Yadav 2010; Knight 2015; Cavusgil and Knight 2015) for development of a more holistic view of the entire born global internationalisation process, and more conceptual papers to further enhance the scholarship in the field (Paul and Rosado-Serrano 2019). Specifically, we conceptualise the transformation of organisational level capabilities, and the role of microfoundations in the born global firms.

We structure the paper as follows. First, a systematic review of the literature is presented with an emphasis on incorporating various theoretical foundations and exemplifying the missing link when organisational capabilities are transformed between firm's micro and macro-levels. Next, we highlight the key rationales for having a more integrated view of the entire transformation process. Following is the conceptual framework and set of propositions to advance the theory of an integrated model of born global's accelerated internationalisation. Concluding remarks, contributions and implications for future research are finally proposed.

Review of the literature

Born globals

Born globals (Madsen and Servais 1997) are a novel breed of firms thriving in the contemporary globalising world. With enormous flexibility and efficient utilisation of resources, contrasting to the traditional theories on internationalisation (Johanson and Vahlne 1977), they surprisingly start internationalising right from or close to inception instead of following a stepwise process. Research in this area is still “underdeveloped and fragmented”, and “most extant research has been exploratory and descriptive, with little emphasis on developing theory” (Knight and Liesch 2016: 98). This has motivated us to initiate this paper with a focus on deeper theoretical development on the role of organisational capabilities in the born global domain (Knight and Cavusgil 2004).

Researchers have attempted to examine born globals' internationalisation practice from different theoretical perspectives, such as networking view (Chetty and Campbell-Hunt 2004; Sullivan Mort and Weerawardena 2006; Karra et al. 2008; Coviello and Cox 2006; Gerschewski et al. 2015), learning perspective (Bruneel et al. 2010; Autio

et al. 2000), knowledge-based view (Gassmann and Keupp 2007; Freeman et al. 2010), and dynamic capabilities approach (Weerawardena et al. 2007; Weerawardena et al. 2015). Specifically, some suggest that it is the networking strategies that play a crucial role in speeding up the internationalisation process (Chetty and Campbell-Hunt 2004; Sullivan Mort and Weerawardena 2006; Freeman et al. 2010; Karra et al. 2008), or selecting entry modes (Ripollés and Blesa 2017). Born global firms experienced a fast learning and accumulation process with which they can better tolerate risks and conduct bold actions (Chetty and Campbell-Hunt 2004). However, later in their development, there is “a significant positive relationship between experiential learning and the extent of internationalization” (Bruneel et al. 2010: 175).

Besides, various works have been done to find out what capabilities born globals have leveraged to speed up their internationalisation. On the one hand, empirically, some specific types of capabilities, which play a crucial role in their internationalisation process, have been suggested in the literature, such as networking capability (Falihat et al. 2018; Sullivan Mort and Weerawardena 2006; Laurell et al. 2017), market related capabilities and marketing capabilities (García-Cabrera et al. 2017; Martin et al. 2017), financial capabilities (Kuivalainen et al. 2010), entrepreneurship capabilities (Karra et al. 2008), product innovation or technical product development capabilities (García-Cabrera et al. 2017; Laurell et al. 2017), and more strategically, organisational capabilities to craft new business strategies which focus on unique product, technology, quality and distribution (Knight and Cavusgil 2004), or develop absorptive responses to the changing conditions (Rodríguez-Serrano and Martín-Armario 2019). On the other hand, attempts have also been made to summarise internationalisation research to build up a ‘list’ of capabilities possessed by born globals (Knight and Liesch 2016).

In more detail, García-Cabrera et al. (2017) contend that the abilities to supply homogeneous goods across markets, and to innovate new products influence the born globals’ internationalisation trajectories. Karra, Phillips, and Tracey (2008) discuss entrepreneurial capabilities including those relevant to identifying international opportunities, networking with institutions and collaborating across borders. Opportunity searching should be done in a systematic and active manner while it takes time and effort to understand and build up relationships with international customers, partners and distributors. Specific study of multinational enterprises (Li 2010), from a learning perspective, suggests how different learning trajectories influenced the development of capabilities and core competences. Mejri and Umemoto (2010), with a knowledge-based view, argue for different types of knowledge, i.e. market and experiential ones, interacting with each other facilitating the internationalisation process. Acquisition and utilisation of that knowledge strengthen firms’ capabilities leading to enlargement of overseas businesses. Gabrielsson et al. (2008) describe born globals as having accelerated internationalisation capability and global market potential. It is that potential, which can be achieved with distinctive products, combined with entrepreneurial capability that characterise born global firms.

Derived from the resource-based view, Coviello and Cox (2006) emphasise the role of networks in acquiring, mobilising and developing resources in international new ventures in their study of startups across different phases, from inception to growth. The networking capital compensates the scarcity of resource at the early stage of international new venture development. The role of networking capability in born global firms has also been further investigated in other works (Sullivan Mort and

Weerawardena 2006; Weerawardena et al. 2007; Cavusgil and Knight 2015). Functional and secondary networking capabilities are proposed to shore up the process of instant internationalising and creating knowledge intensive products.

Extending that view and incorporating other types of capabilities, Weerawardena et al. (2007) propose an integrated born global and dynamic capabilities framework to explain how born globals rapidly internationalise. The work focuses on how marketing capability and knowledge intensive products were created by capitalizing on organisational learning and exploiting owners/managers' profiles. Going further, Weerawardena et al. (2015) argue that market and socio-technical subsystems, which consist of different types of dynamic capabilities, facilitate the early internationalisation process. Despite continued exploration, nevertheless, to date it has not been adequately explained how born globals build up and maintain necessary capabilities for their internationalisation (Dabić et al. 2019; Øyna and Alon 2018).

Dynamic capabilities

The dynamic capabilities view (Teece et al. 1997; Teece 2014a), which can be considered as an extension of the resource-based view, has grown rapidly over the last decades. This view addresses one of the biggest concerns of firms, which is how to sustain their strength and capabilities, especially in turbulent times. The resource-based view has been criticised as 'inherently static' (Teece 2007, 1344), not being able to explain firm's competitive advantage in changing environments (Eisenhardt and Martin 2000). Dynamic capabilities, in contrast, focus on enhancing organisational agility (Teece et al. 2016), and developing and reconfiguring firm's bundle of resources in times of change (Easterby-Smith et al. 2009; Schilke et al. 2018). In that vein, we adopt in this paper Helfat et al.'s (2007: 4) definition of dynamic capability, which is "... the capacity of an organization to purposefully create, extend, or modify its resource base".

Over the past decades, research on dynamic capabilities has evolved from a focus on two major foci, either on the nature of the concept or its subsequent outcomes (Helfat et al. 2007) to attempts to examine more comprehensively the "antecedents, dimensions, mechanisms, moderators and outcomes of dynamic capabilities" (Schilke et al. 2018: 390). Dynamic capabilities can be described in terms of routines and learning (Zollo and Winter 2002; Teece 2012), processes themselves (Eisenhardt and Martin 2000; Eriksson 2014), or embedded in processes (Wang and Ahmed 2007), or capabilities themselves (Helfat et al. 2007; Pavlou and El Sawy 2011). The outcomes of dynamic capabilities are still controversial as some researchers advocate for a link between dynamic capabilities and firm's performance (Teece 2007; Teece et al. 1997; Pavlou and El Sawy 2011; Schilke et al. 2018), and change (Eriksson 2014; Schilke et al. 2018). Dynamic capabilities help sustain firm's competitive advantage by flexibly reconfiguring and renewing bundles of resources. Eisenhardt and Martin (2000, 1118), arguing for 'commonalities or best practices or across firms', however, support equifinal trajectories toward dynamic capabilities and consequently refuse dynamic capabilities' causal effects on firm's competitive advantage and performance (Easterby-Smith et al. 2009).

Some scholars (Zollo and Winter 2002; Giniuniene and Jurksiene 2015) pay particular attention to the relationship between dynamic capabilities and learning mechanisms, along with operating routines. Learning mechanisms, with the accumulation of

experience, the articulation and codification of knowledge, play a central role in nurturing and facilitating dynamic capabilities and consequently upgrading operating routines (Zollo and Winter 2002). Eisenhardt and Martin (2000) further develop the traditional view of dynamic capabilities that focused on routines by moving forward to a more contingent view of dynamic capabilities depending on market dynamism. The processes of transforming resources and capabilities (Wang and Ahmed 2007) involve integrating, reconfiguring, renewing and recreating activities thanks to firms' adaptive, absorptive and innovative components of dynamic capabilities.

Another controversial issue in the literature is the interaction between dynamic capabilities and operational capabilities (Weerawardena et al. 2019), which can respectively be defined as the capabilities of the firms to "change operational routines" and to "earn a living" (Cepeda and Vera 2007; Helfat and Peteraf 2003; Pavlou and El Sawy 2011; Weerawardena et al. 2019). From the knowledge-based view, the original endowment of resources and routines will be transformed thanks to the firms' dynamic capabilities, which later result in newly configured resources and operational routines (Cepeda and Vera 2007), or operational capabilities (Winter 2003; Pavlou and El Sawy 2011; Weerawardena et al. 2019).

Research on dynamic capabilities still generally lacks a consensus on "how do dynamic capabilities develop?" (Romme et al. 2010: 2), and largely concentrates on established firms, neglecting SMEs and new ventures (Zahra et al. 2006). Some attempts have also been made to link dynamic capabilities, of which the nature is still ambiguous (Mahringer and Renzl 2018), with other research domains, such as entrepreneurship (Zahra et al. 2006; Teece 2014a). Inter-disciplinary approaches are necessary as they may better explain unresolved gaps (Cavusgil and Knight 2015). Capabilities developed by firms, for instance, in the view of Loasby (2006), still need to be explained more smoothly by incorporating roles of organisational members. In that vein, microfoundations perspective might become an appropriate complementary view.

Microfoundations

Little has been done to investigate the micro-level origins or microfoundations of routines and capabilities (Felin et al. 2012), and the transformation of organisational capabilities from micro-level to firm-level (Felin and Foss 2006; Felin et al. 2015). The neglect of microfoundations might partly be explained by the taken-for-granted conjecture that analysing micro-level should be done at the base-discipline level (Felin and Foss 2006; Felin et al. 2015). In general, research has traditionally been carried out at the firm-level where organisational capabilities have already been transformed and built up from individual members, particularly the founding team. Consequently, a missing gap still exists with limited studies on how this process happens. In such a condition, microfoundations can be proposed as the foundation for explaining firm's capability development (Loasby 2006; Felin and Foss 2006; Barney and Felin 2013; Felin et al. 2015; Felin et al. 2012; Chittoor et al. 2019).

Over the past decade or so, however, there has been an increasing attention on studying organizations at the individual-level (Felin et al. 2012; Felin and Foss 2005; Felin et al. 2015). Felin and Foss (2005) describe a capabilities collectivism, then analysed deficiencies of capabilities collectivism, and finally focused on the individual origins of organisation capabilities. Teece (2007, 1342) propose a new framework for

three different types of dynamic capabilities and their respective (selected) microfoundations. The framework views dynamic capabilities as “the foundation of enterprise-level competitive advantage in regimes of rapid (technological) change” (Tece 2007: 1341). Going further, Abell, Felin and Foss (2008) argue that routines and capabilities should be best researched at the micro-level with “complicated individual action and interaction”. Macro-level explanation is therefore inadequate to explain the organisation capability development process. Firm capabilities, according to Loasby (2006), are rooted in individual members of that organisation and facilitated by firm-specific linkages and networks of connections. The foundational dynamic capabilities can specifically be in the forms of processes, for instance, new product development, alliancing (Eisenhardt and Martin 2000), process R&D, restructuring, re-engineering (Zollo and Winter 2002), managerial cognitive logics of actions and hierarchy (Gavetti 2005), value adding and disruption capabilities (Prange and Verdier 2011), or generally addressed as “the distinct skills, processes, procedures, organizational structures, decision rules, and disciplines” (Tece 2007: 1319).

In the existing context of the state of the literature, where ambiguity has not been satisfactorily eased, a widely accepted definition for microfoundations still seems to be absent. Felin et al. (2012: 1353) define microfoundations broadly as “a theoretical explanation, supported by empirical examination, of a phenomenon located at any analytical level N at time t (N_t)”. Tece (2007: 1321) portrays the microfoundations for dynamic capabilities as “...the distinct skills, processes, procedures, organizational structures, decision rules, and disciplines - which undergird enterprise-level sensing, seizing, and reconfiguring capacities...”. Microfoundations is also generically described with various phenomena, such as methodological individualism (Felin and Foss 2006), individual action and interaction (Felin and Foss 2009, 2005; Abell et al. 2008), involving actors, processes and/or structures (Felin et al. 2015), and, to some extent, mindfulness (Gärtner 2010) and intra-organisational antecedents (Volberda et al. 2010). Drawing on Eisenhardt et al. (2010), we adopt a working definition of microfoundations as *the foundational layer at which the dynamic accumulation of and interactions among individual-based routines, resources, skills and expertise occurs for subsequent conversion into firm-level organisational capabilities*. By ‘foundational layer’, we mean microfoundations exist since the birth of the organisations and continue to be the ground on which organisational capabilities build up. From the beginning, microfoundations consists of a stock of individuals’ resources, and appropriate transforming mechanisms to convert them into macro-level capabilities. Consequently, microfoundational resources, in our view, is not a static concept but a dynamic one that strengthens and evolves over time along with organisational capabilities.

In summary, it is still relatively unexplored how operational capabilities and dynamic capabilities can link together (Weerawardena et al. 2019) and with microfoundations to build up firm’s overall capability and accordingly affect its performance. More still needs to be done to understand the evolution of dynamic capabilities, especially in relation to individuals at micro level (Fallon-Byrne and Harney 2017; Mahringer and Renzl 2018). However, it seems clear that the microfoundations approach has the potential to bring particular clarity in the context of how a new firm moves from a set of individuals to a coherent organisation (D’Angelo and Presutti 2019), as is the situation in born globals.

An integrated view on born global internationalisation

Organisational capability development is traditionally studied at the firm-level, taking into account the impact from external and internal environmental factors (Iansiti and Clark 1994) as noted above. Studying capabilities only at firm-level may result in several shortcomings. First, an incomplete observation may make researchers gravely overlook the linkage between the individual-related foundations of organisational capabilities. It is problematic when putting explanatory variables at collective level (i.e. with macro-macro links) when studying organisational outcomes as “there are no conceivable mechanisms on the social domain that operate solely on the collective level” (Felin and Foss 2006: 11), and “... early internationalisation is more likely facilitated by micro-level internal capabilities” (García-Cabrera et al. 2017: 1215–1216). Second, without the root from microfoundations, it is challenging to build up sustainable advantage and maintain competitiveness especially when firms have to cope with market dynamism. Third, in the case of born globals when firms start having international businesses right at the beginning, the role of individual’s resources become more critical for success (Liu 2017), as the firm’s capabilities mostly reside in their founding members, and the time is relatively short to make the instant transition to higher and indeed compelling level capabilities. This makes born globals both a suitable context in which to examine microfoundational processes and a context in need of attention in regard to the fundamental mechanisms operating to deliver the early and rapid internationalisation.

Several missing pieces of the overall picture of born global internationalisation need to be completed. First of all, the current literature has not adequately explained the process of building and transforming organisational capabilities needed for the accelerated pathway. The ‘combined use of multiple core theories’ (Rialp et al. 2005), or even ‘multiple literature’ (Coviello 2015), might be necessary to understand more thoroughly the whole process, with “better formulated and integrated theoretical frameworks” (Knight 2015: 11). Secondly, regarding that process, it is still relatively unclear how the initial endowment of capabilities and organisational resources links with entrepreneurial team member’s resources and how these individual assets affect the later transformation and reconfiguration of capabilities. Thirdly, much is needed to further explain how the original capabilities are transformed into new operational capabilities that facilitate accelerated internationalisation under the impact of dynamic capabilities (Weerawardena et al. 2019). Fourthly, how much microfoundations and learning mechanisms may contribute to explain and smooth the entire transformation process is still an open question to be further investigated (Coviello, Kano and Liesch 2017). And finally, it is still insufficiently explained what operational capabilities are needed for born global’s accelerated internationalisation. This paper aims at addressing those gaps by initiating an integrated model of born global internationalisation anchored at microfoundational level in dynamic capabilities and learning perspectives. A holistic view of the entire internationalisation process is presented in the following section, grounded in a view of the processes at play in the nascent born global firms.

Conceptual framework and propositions

By synthesising the previous literature on born global, dynamic capabilities view, microfoundations, and learning view, especially revisiting previous models by Weerawardena et al. (2007), Zollo and Winter (2002), Weerawardena et al. (2019), we propose an integrated model of born global accelerated internationalisation in Fig. 1. The model proposes answers to the specific issue of how a small group of individuals are able to form a firm to rapidly and effectively internationalise. The model, at the same time, sheds light on the unresolved issues identified earlier in dynamic capabilities and microfoundations views.

A summary of the main concepts and processes used in the framework is presented in Table 1 and incorporated in the discussion below. We consider the formation stage and then the subsequent development and internationalisation stage presenting the development of the four propositions in the model.

Formation stage

Owner/manager’s microfoundational resources

We first address the born global owner manager’s microfoundational resources. Consistent with our above microfoundational working definition, we acknowledge the path-dependent characteristic of microfoundations. The firm’s capabilities can be disassembled into that of organisational members. Since individual members are considered as the assembling units of organisations (Felin and Foss 2006) and ‘core

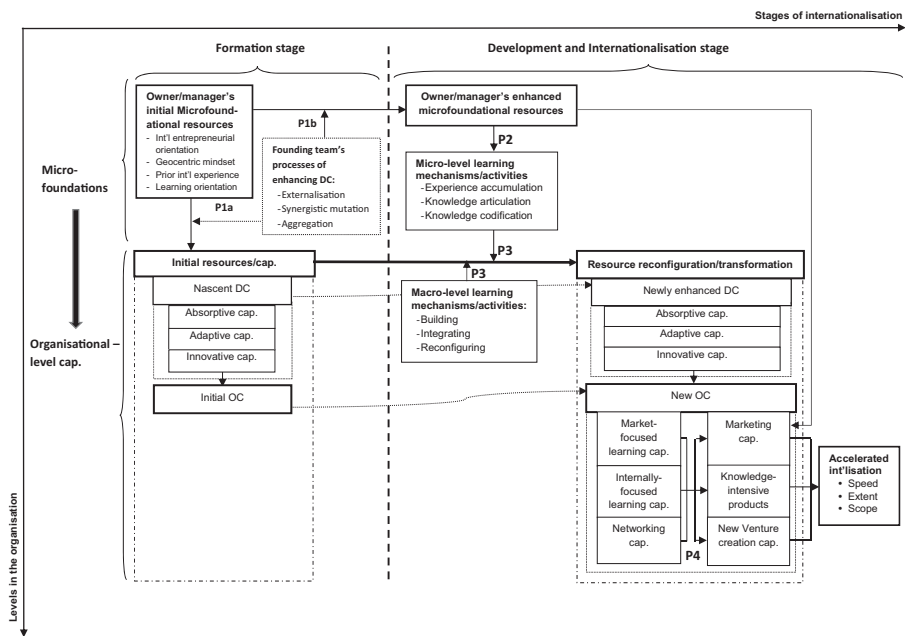


Fig. 1 An integrated model of accelerated internationalisation of Born globals
 DC – Dynamic capabilities, OC – Operational capabilities, Cap. – Capabilities, Int'lisation - Internationalisation

Table 1 Summary of major concepts used in the proposed integrated model of accelerated internationalization of Born globals

Major concepts	Descriptions	Cited article(s)	Linked components/propositions in the integrated model
Dynamic capabilities	“... the capacity of an organization to purposefully create, extend, or modify its resource base”, or the capabilities of the firms to “change operational routines”.	Helfat et al. (2007, 4)	<ul style="list-style-type: none"> • Initial resources/capabilities • Resources reconfiguration/transformation/ • Propositions 1a, 3
Dynamic vs. operational capabilities	The capabilities of the firms to “change operational routines” and to “earn a living”, respectively.	Cepeda and Vera (2007), Helfat and Peteraf (2003), Pavlou and El Sawy (2011)	<ul style="list-style-type: none"> • Initial resources/capabilities • Resources reconfiguration/transformation/ • Propositions 1a, 3
Microfoundations	The foundational layer at which the dynamic accumulation of and interactions among individual-based resources, skills and expertise for subsequent conversion into firm-level organisational capabilities occur.	Authors’ working definition in this research drawing on Eisenhardt et al. (2010) (page 11)	<ul style="list-style-type: none"> • Owner/manager/s initial microfoundational resources • Owner/manager/s enhanced microfoundational resources • Propositions 1a, 1b
International entrepreneurial orientation, Geocentric mindset, Prior international experience, Learning orientation	Components of owner/managers’ profile that facilitate the internationalisation process of born globals.	Weerawardena et al. (2007)	<ul style="list-style-type: none"> • Owner/manager/s initial microfoundational resources • Proposition 1a
Externalisation, Synergistic mutation, Aggregation	Processes of enhancing individual capabilities via sense-making of knowledge routines.	Weerawardena et al. (2019)	<ul style="list-style-type: none"> • Founding team’s processes of enhancing dynamic capabilities • Propositions 1a, 1b
Experience accumulation, Knowledge articulation, Knowledge codification	Constituent processes learning mechanisms which gradually intensify dynamic capabilities.	Zollo and Winter (2002)	<ul style="list-style-type: none"> • Micro-level learning mechanisms/-activities • Propositions 2, 3
Building, Integrating, Reconfiguring	Knowledge routine development activities as part of firm-level-learning underlying process of transforming dynamic capabilities.	Teece et al. (1997), Zollo and Winter (2002)	<ul style="list-style-type: none"> • Macro-level learning mechanisms/-activities • Propositions 2, 3
Absorptive, Adaptive, Innovative capabilities	Main component factors of dynamic capabilities	Wang and Ahmed (2007)	<ul style="list-style-type: none"> • Nacent/newly enhanced dynamic capabilities

Table 1 (continued)

Major concepts	Descriptions	Cited article(s)	Linked components/ propositions in the integrated model
	derived from empirical research.		• Proposition 3
Market-focused learning capability, Internally-focused learning, Networking capability	Learning capabilities essential to born globals' early internationalisation.	Weerawardena et al. (2007)	• New operational capabilities • Proposition 4
Marketing capability, Knowledge-intensive products	Born globals' capabilities developed from owner/manager profile, market-focused learning capability, internally-focused learning, networking capability.	Weerawardena et al. (2007)	• New operational capabilities • Proposition 4
New venture creation capability	Born globals' capability to start a new venture.	Weerawardena et al. (2019)	• New operational capabilities • Proposition 4

microfoundation of the internationalization process' (Coviello et al. 2017), it has been proposed that firm's capabilities are built upon knowledge and skills of individuals (Loasby 2006; Pavlou and El Sawy 2011; Kight and Liesch 2016; Weerawardena et al. 2019), and born globals "have roots back to firms and networks in which its founder(s) and top managers gained industry experience" (Madsen and Servais 1997: 573). These individual resources, as "a holistic bundle of identity, knowledge, and networks" (Sarasvathy et al. 2014: 76), have been identified as undoubtedly of great importance in the stage of firm formation (Coviello 2015). That observation is worth highlighting in the case of born globals, especially when the firms are driven by fierce competitive environment and opportunities for doing business internationally (Knight and Liesch 2016). In that situation, the founding born global team play a central role in shaping and developing a firm's resources and capabilities.

Empirically, "the pre-start-up international experience of the founding team" has an initial influence on firm internationalization (Bruneel et al. 2010: 175). This base of knowledge that the firm inherits as part of the founding team's prior experience is important in the new firm along with interorganizational learning, though as the young firm grows, experiential learning becomes increasingly important. Supporting this, McDougall, Oviatt, and Shrader (2003) compare domestic new ventures and born globals and suggest the entrepreneurial team's experiences as one of the differentiating factors between the two types of ventures. The born global founding team had distinctly more international background. Hallböck and Larimo (2007) also accentuate the role of founding conditions, international motives and experience of the founding members in the early phase of new ventures.

The born global entrepreneurs' competencies are particularly important when resource scarcity exists and a new and distinctive set of capabilities is significantly

required for new ventures to expand their business overseas. Owners/managers' factors that facilitate the internationalisation process include international entrepreneurial orientation, geocentric mindset, prior international experience and learning orientation (Weerawardena et al. 2007), along with entrepreneurial orientation (Muñoz-Bullón et al. 2015; Falahat et al. 2018), global vision at inception (Gabrielsson and Pelkonen 2008), entrepreneurial characteristics (Paul and Rosado-Serrano 2019), high educational levels and technology use (Amorós et al. 2016), market and segment knowledge (Baronchelli and Cassia 2014), previous entrepreneurial experience (Ughetto 2016), or combination of creativity, knowledge and resourcfulness of the management team (Johnson 2004; Jones et al. 2011; Loane et al. 2007). The role of managers was further supported by Gavetti's (2005) work where the interaction between the managers' cognitive logic of actions, routine-based behaviours and hierarchical structure affects the organisational capability development.

According to Ambrosini and Bowman (2009), a number of factors including managerial behaviour, proactivity and leadership, as parts of the internal environment, influence dynamic capabilities, the resource base and consequently organisational outcomes. Furthermore, in a similar vein to other researchers (Felin and Foss, 2006, Abell, Felin, and Foss, 2008; Felin et al. 2015), we emphasise complicated individual action and interaction, and we postulate that it is the dynamic accumulation and interactions between micro-level resources, particularly at the born global firm's formation stage, that shape the organisational capabilities afterward at macro-level. These resources will further be strengthened during firm's development and internationalisation stage. The emerging firm needs to encourage members to be creative, develop new competencies and refine existing ones (Knight and Kim 2009). They need to share limited resources and knowledge with other employees in the organization (Argote et al. 2000).

We further argue that the distinctive set of characteristics of the founding team members, such as international-oriented skills, experiences and attitudes (Moen and Servais 2002; Weerawardena et al. 2007; Aspelund et al. 2007; Weerawardena et al. 2019) specifically required for born globals are integrated and reinforced by a set of sub-processes to build up the firm's initial endowment of capabilities. We propose that, at the early stage of setting up the firm, the process of developing microfoundational capabilities starts with the founders' international orientation followed by the accumulated knowledge in previous international contexts. The new firm's team is motivated by the opportunity which creates a supportive environment for knowledge sharing.

Knowledge sharing processes are conceived as the processes through which employees mutually exchange knowledge and jointly create new knowledge (Van den Hooff and de Leeuw van Weenen 2004). Lin (2007) found knowledge sharing to be significantly related to a firm's innovation capability. Foss (2007) suggests that knowledge sharing involves, at least, revisiting one's routines and sharing knowledge with others.

In this regard, we posit that the process of knowledge sharing and converting founding entrepreneurial team members' capabilities into organisational capabilities consists of knowledge externalisation, synergistic mutation and aggregation phases (Weerawardena et al. 2019). These processes capture knowledge sharing routines and sub-processes at the team level: knowledge externalization is the process of making knowledge part of the team resources rather than individuals stock of experience;

synergistic mutation describes a positive “greater than sum of parts” team learning routine, and aggregation is the routine to build a set of knowledge based upon processes of sharing. Leveraging on those microfoundational mechanisms and under the social processes in the founding team, individuals critically exchange information and experiences in building dynamic capabilities. As a consequence, collective learning happens, followed by the repeated individual interactions (Felin and Foss 2009; Felin et al. 2015; Felin et al. 2012) that shapes initial operational capabilities, which might be in the form of technical and non-technical capabilities (Weerawardena et al. 2019), or market and technological capabilities (García-Cabrera, García-Soto and Suárez-Ortega 2017). Given the crucial role of the founding team’s individual-based resources available to be converted into organisational capabilities and enhance microfoundational resources, we propose:

Proposition 1a.

The microfoundational sub-processes of enhancing dynamic capabilities moderate the process of converting owner/manager’s skill profile existing at microfoundations level into a firm’s initial resources/capabilities endowment at the firm’s formation stage.

Proposition 1b.

The microfoundational sub-processes of enhancing dynamic capabilities moderate the process of transforming initial to enhanced owner’s/manager’s microfoundational resources at the development and internationalisation stage.

Development and internationalisation stage

Enhanced microfoundational resources and micro-level learning mechanisms

Moving beyond the formation stage, we next consider the development and internationalisation processes supporting the rapid and early international growth. Learning mechanisms, according to Zollo and Winter (2002), with constituent processes of experience accumulation, knowledge articulation and codification, gradually intensify dynamic capabilities. In line with Shameen and Steven (2012), we argue that those processes are expected to be carried out at microfoundations level and since they are largely associated with the firm’s owner/ manager team and individuals play a central role in the learning process (Sapienza et al. 2006; Kumar 2013), contrasting with the learning sequence that happen at the organisational level which will be expanded upon in the next proposition. As born globals develop and internationalise shortly after their birth and operate in less psychologically close countries from their home markets, by working with various partners and customers, dealing with numerous regulatory requirements, satisfying diverse consumer behaviours, tastes and preferences, applying these learning mechanisms, the owner/manager team gradually accumulate and build up organisational routines and experiences.

Knowledge articulation is described by Zollo and Winter (2002: 341) as “the process through which implicit knowledge is articulated through collective discussions, debriefing sessions, and performance evaluation processes”. The information and experiences that organisational members have learnt need to be exchanged, discussed,

constructively critiqued and refined to be more relevant and applicable for the firm. Lastly, the new knowledge emerged from the aforementioned processes, expressed in written forms, is systematically utilised and diffused to strengthen the firms' product-market position or competitive advantages. Clearly, individual learning has been put at the heart of these processes.

As mentioned above, we maintain that under the impact of externalisation, synergistic mutation and aggregation processes (Weerawardena et al. 2019), the initial owner/manager's microfoundational resources will be further strengthened when born global firms develop and internationalise its operations. This individual repertoire, in its turn, will affect how owner/manager team members learn new knowledge and experiences. Cohen (1991: 135) argue that "... building and modifying the [individual] repertoire of skills are fundamental activities because they embody learning in routines ...". Enriching this repertoire helps move down in the learning curve and improve performance. In addition, Zollo and Winter (2002: 341) postulate that individual experiences contribute significantly to the knowledge sharing processes and direct the way organisation members learn "the causal mechanisms intervening between the actions required to execute a certain task and the performance outcomes produced". In that regard, we are led to form the next proposition:

Proposition 2.

The owner/manager's enhanced microfoundational resources are positively related to micro-level learning mechanisms/activities.

The transformation of organisational-level capabilities

We conjecture that the initial endowment of organisational capabilities includes two components, namely nascent dynamic capabilities and initial individual level inherited operational capabilities. Dynamic capabilities, as mentioned above, do not necessarily occur only later as the firm grows but exist right from the firm's establishment as the capability building can be considered as a process that starts even before the firm's official inception. This is where the founding team's processes of externalisation, synergistic mutation and aggregation practices occur as fundamentally important. Dynamic capabilities, "those that operate to extend, modify or create ordinary capabilities" (Winter 2003: 991), or routines/operational capabilities, always exist in a firm, no matter whether it is a new or established one, and do not necessarily need to follow a path-dependent development process (Prange and Verdier 2011). Nevertheless, the level of capability development varies from company to company. As firms capitalise on managerial experiences, knowledge and outward orientations to smooth the process of organisational capacity building (Cepeda and Vera 2007), the profile of the entrepreneurial team significantly promotes the transformation of organisational capabilities. Organisations with better ability to learn that can subsequently transform and reconfigure operational capabilities (Cepeda and Vera 2007; Pavlou and El Sawy 2011) will possess stronger dynamic capabilities.

Three component factors of dynamic capabilities, as proposed in Wang and Ahmed's (2007) work, include adaptive, absorptive and innovative capabilities. They argue that these capabilities "underpin a firm's ability to integrate, reconfigure, renew

and recreate its resources and capabilities in line with external changes” (Wang and Ahmed 2007: 39). In more detail, adaptive capability involves with a firm’s ability to response in a timely manner with the changes in the external environment by flexibly renewing its resource base. Absorptive capability, on the other hand, focus on firm’s effort to actively combine and recombine its own knowledge with that acquired from external environment. The knowledge is then articulated and ready to be applied. Additionally, Volberda, Foss, and Lyles (2010) urge for more emphases to be given to “micro-antecedents” (e.g. management cognition/dominant logic or individual knowledge development/sharing), “macro-antecedents” (e.g. structures and informal networks), or a multilevel-antecedents approach (i.e. managerial, intra-organisational and inter-organisational) for absorptive capability. Finally, firm’s innovativeness is reinforced by its innovative capability to strongly link with market advantages. New product, market development (Wang and Ahmed 2007), or innovative outputs (Monferrer et al., 2015) are the result of this process. The above component capabilities, due to their newness, are relatively weak at the firm’s inception and consequently struggle to reconfigure the initial operational capabilities. The microfoundations and learning mechanism play a determinant role in facilitating the capability transformation process from initial resource endowment to a new set of enhanced organisational capabilities. Consequently, microfoundations contribute to fortifying the underpinnings of organisational revolution (D’Angelo and Presutti 2019), learning and the exploration and exploitation of knowledge expands born globals’ international market (Monferrer et al., 2015).

Drawing on Teece, Pisano, and Shuen’s (1997) earlier work, Weerawardena et al. (2019) delineate that the process of firm-level learning underlying dynamic capabilities transformation as based on *building*, *integrating* and *reconfiguring* organisational routines. Being considered as the ‘building blocks’ of dynamic capabilities, organisational routines are initially acquired, then reinforced and finally adapted into firm’s learned practices (Weerawardena et al. 2019). We argue that these learning processes occur at *firm/macro level* as creating and (finally) absorbing new routines into an existing and complicated organisational apparatus is not a simple task but one requiring various organisation members’ participation and efforts, involving departmental collaboration, using up firm’s resources and strengthening firm’s overall stock of skills. Together with micro-level learning mechanisms that are built upon individuals microfoundational resources, the learning processes that happen simultaneously at macro level substantially intensify the transformation of organisational routines and consequently dynamic capabilities. Those learning practices are reinforced as the organisation grows, and in its turn, helping firm expand its presence in overseas market (De Clercq et al. 2012).

At times of change (Helfat et al. 2007), in turbulent environment (Pavlou and El Sawy 2011) with deep uncertainty (Teece et al. 2016), or shifting market and competitive conditions (Rindova and Kotha 2001), particularly, the more knowledge and experiences the firm can learn, the better it can absorb (Rodríguez-Serrano and Martín-Armario 2019) and adapt to the new situation and initiate fresh entrepreneurial ideas. New dynamic and operational capabilities will progressively be constructed, and organisational routines will be transformed to suit with higher level of development or new competitive environment. Consequently, our next proposition is framed:

Proposition 3.

As born global firms grow and internationalise, micro- and macro-level learning mechanisms/activities moderate the transformation process from initial resource/capability endowment into a set of newly enhanced organisational-level capabilities.

Operational capabilities required for accelerated internationalisation

In a pioneering effort to investigate born global phenomenon under dynamic capabilities view, Weerawardena et al. (2007) delineate a set of capabilities, both externally and internally-focused, that lead to accelerated internationalisation. They posit that market-focused learning capability, internally-focused learning capability and networking capability are positively related to marketing capability and knowledge-intensive products that are consequently led to rapid internationalisation. The marketing-focus and internally-focus learning capabilities both stress on obtaining and articulating market and technological information from external and internal environment (Weerawardena et al. 2019). Besides, the owner/manager profile also positively affects marketing capability in born global firms (Weerawardena et al. 2007; Weerawardena et al. 2019). Berry and Brock (2004), for instance, contend that managerial experiences significantly influence ‘the use of marketplace to support the firm’s international operations’. Blesa et al. (2008) corroborate the role of early international commitment in fostering competitive positions of born global startups. Marketing capability is strengthened when firms successfully craft a suitable marketing mix to timely seize market opportunities (Weerawardena 2003). As suggested by Kuivalainen et al. (2010), marketing capability can possibly be in the form of a firm’s ability to learn through international expansion (Zahra et al. 2000) or reinforce market-oriented behaviours (Brettel et al. 2009). García-Cabrera et al. (2017) suggest that the essential marketing capability needed for fast internationalisation include ability to introduce homogeneous products. Other researchers, however, stress on foreign customer focus and marketing competence (Knight et al. 2004), differentiation strategy focused on marketing (McDougall et al. 2003), or niche marketing strategy (Paul and Rosado-Serrano 2019). Beside marketing capability, in line with Luo (2000), Weerawardena et al. (2007) argue that firms exploit internally-focused technical and non-technical learning to develop knowledge-intensive products. In this vein, García-Cabrera et al. (2017) advocate for product innovation as one of born globals’ core capabilities helping the firms to internationalise.

Weerawardena et al. (2019) extend Weerawardena et al.’s (2007) view by incorporating the new venture creation capability into the necessary capability set, which is critical for accelerated internationalising firms to expand their presence overseas. Facing critical ‘resource poverty’ and operating in highly competitive foreign markets right from beginning, born globals need special new venture creation capability to set up the firm and shape its growing trajectories. Along this line, Prange and Verdier (2011) delineate that, by adding more value and providing disruptive solutions to customer problems, born globals achieve stronger growth rates.

In line with Pla-Barber and Escribá-Esteve (2006) and Weerawardena et al. (2007), we support the measurement of accelerated internationalisation with speed, extent and

scope as the dependent variables. Echoing Eriksson (2014), we acknowledge the impact of dynamic capabilities on changes in operational capabilities. It is also noticeable that we consider the above-mentioned capabilities as a set of newly reconfigured operational capabilities, not just general capabilities needed for rapid internationalisation. By doing this, we hope to make the capabilities transformation process less tautological, more systematic and transparent. In that regard, we propose:

Proposition 4.

The newly enhanced dynamic capabilities transform the born global's initial set of operational capabilities to the intensified internationalisation capabilities, that subsequently trigger accelerated internationalisation of born global firms.

Concluding remarks

In this paper, we have studied the compelling phenomenon of the born global firm, unboxing the underlying processes used by this unconventional type of firms to develop necessary capabilities to internationalise. Our research attempts to address the currently inadequate attention focusing on the microfoundational level and the relationship between the microfoundations and operational and dynamic capabilities. In this way, we endeavour to explain the transition in the born global businesses, from a group of individuals with discrete set of inherited capabilities coming together at the microfoundational level, to a coherent organisation capable of internationalising rapidly. An integrated, holistic model has been proposed to explain the processes, embarking on different capability-enhancing and learning mechanisms, and explicating the relationships and continuing interactions between microfoundational and organisational levels.

This paper makes the following contributions to the literature. Firstly, we have incorporated microfoundations into the process of born global internationalisation to systematically and more convincingly explain how these firms build up the capabilities. Secondly, a synthesis of currently scattered literature on born globals - dynamic capabilities view, learning view, literature of microfoundations and born global - is presented. By linking various promising perspectives together, we provide a more comprehensive view on the internationalisation process of born globals in a hope to ease the confusion of having various concepts and perspectives. Thirdly, in a fresh manner, learning mechanisms have been explored not only at the firm/macro-level but also linked with microfoundational resources at micro level highlighting the roles of individuals in developing the born global firms. And finally, an integrative model to illuminate the black box of born globals' accelerated internationalisation is framed, paving the way for future research and resolving the current inadequacy of conceptual efforts to explain the mechanism of accelerated internationalisation. We identify a delimitation of the paper in that its focus is on internal mechanisms in the born global firm, not explicating the effect of antecedent contextual variables, though we have identified the role of absorptive capacity.

Practically, the research attempts to help owners, managers better understand the necessary actions and processes which can be taken at different stages of the firm, to enhance and transform individual endowment of microfoundational skills, knowledge,

competencies to develop initial building blocks of dynamic and operational capabilities to speed up internationalisation process. The paper also contributes to a better understanding of the different types of capabilities, discussed in preceding research, and provides an integration of diverse terminologies that are used. Practising managers, by understanding the processes, are in a better position to proactively intervene and attempt to emulate the processes that are suggested in our model to underlie successful born globals.

Our model provides a robust framework inviting future empirical tests. Processual and multi-level models can be developed to quantitatively test the framework. For example, the work on social capital at the micro level and its relationship with organisational capabilities (Kemper et al. 2013) might in future benefit from the application of this model. Similarly, work on knowledge sharing and knowledge transfer (such as Minbaeva et al. 2012) might benefit from conceptualisation based on our framework. Other related research, such as microevolution of routines (Loch et al. 2013), might similarly be enhanced by using our model to design further studies on routines. Further efforts can also be made to clarify the relationships between types of operational capabilities needed for internationalisation and the transformation between them, as well as more deeply exploring the new venture creation capability, or internationalisation strategies (Vrontis et al. 2009).

Longitudinal studies observing the development of firms' capabilities over time might be necessary to specifically test the relationships between constructs derived from the model. More qualitative research might be necessary to deepen the understanding of the elements of the model. Well-designed case-based research investigating different layers of organisational hierarchy present in firms may reveal more insights into the linkages in organisational capability development, specifically between micro and macro levels.

As the born global phenomenon is studied at the conjunction of several disciplines, such as international entrepreneurship, strategic management and export marketing, our paper is a valuable synchronising effort to advance the theory. Different lenses, such as microfoundations and dynamic capabilities view, with their own strengths, help analyse the phenomenon more thoroughly. Our paper only represents another step toward a more comprehensive picture of the born global internationalisation process; other researchers in the field are welcomed to further shed light on this topic of much interest.

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